

REMARKS

Summary of the Office Action

Claims 1-2 and 4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Grasyuk* et al. (“*Grasyuk*”), “Compression of Light Pulses by Stimulated Raman Scattering Without a Frequency Shift” in view of Japanese Patent No. 2002-62553 to *Takahashi* et al. (“*Takahashi*”).

Claim 3 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Grasyuk* in view of *Takahashi*, as applied to claim 2, and further in view of U.S. Patent No. 4,812,682 to *Holmes* (“*Holmes*”).

Claims 5-8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Grasyuk* in view of *Takahashi* and further in view of *Holmes*.

Summary of the Response to the Office Action

Claims 1-8 are presently pending for further consideration. Claim 7 is currently amended merely to correct dependency. No new matter has been introduced.

The Rejections under 35 U.S.C. § 103(a)

Claims 1-2 and 4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Grasyuk* in view of *Takahashi*. Claim 3 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Grasyuk* in view of *Takahashi*, as applied to claim 2, and further in view of U.S. Patent No. 4,812,682 to *Holmes* (“*Holmes*”). Claims 5-8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Grasyuk* in view of *Takahashi* and further in view of *Holmes*. Applicants respectfully traverse the rejections for at least the following reasons.

With respect to independent claim 1, Applicant respectfully asserts that the rejections under 35 U.S.C. § 103(a) should be withdrawn because there is no suggestion or motivation to combine *Grasyuk* and *Takahashi* because the two systems rely on contrasting principles of operation and, therefore, the two references teach away from any such combination. Specifically, *Grasyuk* discloses a method for compressing light pulses that involves compression of a light pulse using Raman scattering applied to light pulses. (See, e.g., *Grasyuk*, Title and Abstract.) That is, compression is applied to a light pulse to form a shortened pulse. In contrast, *Takahashi* teaches short pulse generation by saturation amplification of only a front/head part of a light pulse. (See, e.g., *Takahashi*, par. [0005] and Fig. 3, especially Fig. 3c.) Moreover, *Takahashi* specifically uses Brillouin scattering (see *Takahashi*, par. [0005]), whereas the method of *Grasyuk* is specifically contrasted with Brillouin scattering methods (see *Grasyuk*, p. 1045, left col., par. 2; and, *Grasyuk*, p. 1046, right col., first full par.).

Applicants respectfully assert that MPEP 2143.01(VI) instructs that “[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).” Further, Applicants respectfully note that MPEP 2145(X)(D)(2) instructs that “[i]t is improper to combine references where the references teach away from their combination. *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983).” Therefore, Applicants respectfully assert that the rejection of independent claims 1 and 5 are improper and should be withdrawn. Furthermore, Applicants respectfully assert that dependent claims 2-4 and 6-8 are allowable at least because of their respective dependencies from claims 1 and 5 and the reasons set forth above.

Conclusion

In view of the foregoing, Applicant respectfully requests reconsideration and the timely allowance of the application. Should the Examiner feel that there are any issues outstanding after consideration of this Response, the Examiner is invited to contact the Applicant's undersigned representative to expedite prosecution.

EXCEPT for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0310. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,

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Dated: April 30, 2007

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